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| | What is claimed is: | | | | | | | | | | |
| | 1. (WITHDRAWN) A stable compound having a molecular formula H ₉ O ₄ ⁺ . | | | | | | | | | | |
| | | | | | | | | | | | |
| | 2 (WITHDRAWN) A method for causing substantially complete | | | | | | | | | | |
| | dissociation of polyprotic acid in water, said method comprising the steps: | | | | | | | | | | |

| (i) | subjecting | said | water | to | at | least | one | of | mechanical | agitation | and |
|-----|---------------|--------|-------|----|----|-------|-----|----|------------|-----------|-----|
| | | | | | | | | | | | |
| mag | gnetic pertur | batior | 1; | | | | | | | | |

- (ii) mixing said polyprotic acid in said water whereby an aqueous polyprotic acid solution is formed;
- (iii) adding a compound of calcium to water to form a solution of Ca²⁺ ions in water;
- (iv) subjecting an aqueous solution of Ca²⁺ ions to an electric field arranged to convert said Ca²⁺ ions to Ca³⁺ ions whereby a solution of Ca³⁺ ions is generated;
- (v) mixing said solution of Ca^{3+} ions with said aqueous polyprotic solution whereby $Ca_2(SO_4)_3$ precipitates in a liquid are formed;

(vi) removing said Ca₂(SO₄)₃precipitates from said liquid leaving a remaining liquid.

- 3 (amended) A method for generating H₉O₄⁺, said method comprising the steps in operable order:
- (i) subjecting said water to at least one of mechanical agitation and magnetic perturbation;
- (ii) mixing sulfuric said propiotic acid in said water whereby an aqueous sulfuric polyprotic acid solution is formed;
- (iii) adding a compound of calcium to water to form a solution of Ca²⁺ ions in water;
- (iv) subjecting an aqueous solution of Ca²⁺ ions to an electric field arranged to convert said Ca²⁺ ions to Ca³⁺ ions whereby a solution of Ca³⁺ ions is generated;

- (v) mixing said solution of Ca³⁺ ions with said aqueous <u>sulfuric acid</u> polyprotic solution whereby CaSO₄ precipitates in a liquid are formed;
- (vi) removing said CaSO₄ precipitates from said liquid leaving a remaining liquid;
- (vii) lowering temperature of said remaining liquid to where a slush is formed, wherein said slush comprises ice and remaining liquid;
- (viii) passing said slush through a filter whereby said remaining liquid is separated from said ice;
- (ix) subjecting said remaining liquid to distillation whereby free water is removed from said remaining liquid leaving a liquid compound having a molecular formula $H_9O_4^+$.
- 4. (original) The method of claim 3 wherein said step of subjecting said water to magnetic perturbation includes subjecting said water to a field from a monopolar magnet.

- 5. (original) The method of claim 3 wherein said step of subjecting said water to magnetic perturbation includes subjecting said water to a strong magnetic field gradient.
- 6. (original) The method of claim 3 wherein said step of subjecting said water to mechanical perturbation includes moving said water through a centrifugal pump.
- 7. (cancelled)
- 8 (original) The method of claim 3 wherein said step (iii) includes the step of preparing said aqueous solution of Ca²⁺ ions by mixing a calcium compound in water contained in a non-magnetic mixing tank.
- 9.(original)The method of claim 8 wherein said calcium compound is selected from a group of compounds which consists of calcium metal

turnings, calcium hydrate, calcium oxide, calcium hydroxide, calcium phosphate dibasic, calcium sulfate, calcium carbonate.

10 (original) The method of claim 8 wherein said step of mixing said calcium compound in water contained in said non-magnetic mixing tank includes the step of subjecting said calcium compound in water to a monopolar magnetic field.

- 11 (amended)) The method of claim 8 wherein said step of mixing said calcium compound in water contained in said non-magnetic mixing tank includes the step of subjecting said calcium compound in water to a magnetic field gradient.
- 10 12 (amended) The method of claim 3 wherein said step (iii) includes the step of chilling said solution of Ca²⁺ ions in water where by solubility of said calcium compound is increased.

- the step of allowing said Ca precipitates to settle after which said precipitates are removed by decanting and filtering said solution from said precipitates.
- 12 14 (amended) The method of claim 3 wherein said step (vi) of adding an anionic surfactant whereby precipitation and settling of precipitates is aided.
- 14 15 (amended) The method of claim 13 wherein said filter of step (viii) is a twenty mesh screen and step (viii) further includes:

forcing said decanted precipitates with water through a filter press whereby a cake of calcium sulfate is formed, usable as a soil pH modifier.

15 16 (amended) The method of claim 3 wherein ice collected from step (vi) is added to step (v) of a next cycle in the method for generating $H_9O_4^+$.

46 17. (amended) The method of claim 3 wherein said step (ix) includes the step of performing distillation in a low temperature low pressure environment.

17 18 (amended) The method of claim 3 which includes after step (ix), an additional step, (x) being any one of:

providing hydrogen for a liquid fuel cell;

satisfying the electrolyte requirements in a battery; a battery electrolyte wherein the greater redox potential of the H9O4+ presents a greater battery voltage.;

replacing mineral acids in pH adjustments whereby accumulation of anions associated with the mineral acids is avoided;

replacing any one of nitric acid and muriatic acids in pretreating steps in electro- and electroless plating;

applying said H₉O₄ compound in biological processes where non reactive properties with organic tissue are required.